

Biosecurity

The Biosecurity section of the CLPP is designed as a guide to supplement any national species program. The Biosecurity section was developed by BOAH to highlight eight areas of importance when designing on-farm biosecurity. Please submit an existing biosecurity plan or work with your veterinarian in developing a plan designed specifically for your operation. All CLPP candidates must submit a biosecurity assessment from a veterinarian.

The Biosecurity section contains the following:

- A sample biosecurity plan
- A self assessment
- A veterinarian assessment

DRAFT

Biosecurity

Biosecurity Guidelines for the Farmer or Producer

Biosecurity is to the practice of reducing the chances of an infectious disease from being carried onto the farm. Diseases can be carried by people, animals, equipment or vehicles either accidentally or intentionally.

The safety of the food supply has to start at its source - the farm. The threats of foot-and-mouth disease and the presence of avian influenza and exotic newcastle disease in some poultry flocks in other areas of the country and the world, make us all aware of the need for enhanced biosecurity on the farm. Biosecurity also includes practices to protect the food supply from intentional destruction, or agroterrorism. All producers must establish good farm security and biosecurity protocols to protect their animals, crops and property from accidental or intentional contamination.

Threats to animals, their feed and agricultural plants may occur by four basic means:

1. Biological, including bacteria, toxins, viruses, parasites and fungus
2. Chemical, including classical chemical warfare agents, pesticides, rodenticides and heavy metals
3. Radiological, or agents that can be delivered as solids or liquids
4. Physical, such as glass, metal and plastic

(Stallings et. al. 2002).

The following eight topics will give you a guideline to develop the security plan that is specific to your operation. We are not requiring all of the suggested ideas; these are simply examples for each section to guide you in development of your plan. There is a sample outline at the end of the chapter that may be used to develop your plan.

1. Security of the Buildings and Grounds: The physical security of buildings and grounds is a vital step in ensuring farm biosecurity. Security risks should be assessed and steps taken to control those risks.

- It is best to have only one entry/exit road from the farm. That entrance should be clearly marked with signs. For added security the entry/exit should have a lockable gate with controlled gate access.
- Security lighting and perimeter fencing are important. An extra fence between a farm and the neighboring farm may help prevent nose-to-nose contact between animals and reduce disease transmission.
- The use of electronic security devices such as motion detectors, door alarms, video cameras and alarms linked to an off-site security monitoring system should be considered.
- Critical storage areas should be locked when not in use and should have limited entry.
- Entry prevention devices should be installed on exterior ladders to prevent unauthorized use and to prevent access to the top of bulk storage tanks.
- The entry and discharge points of exterior liquid tanks (whether above or below ground) should be locked when not in use.

- All vehicles should be locked at night and whenever there is no one on the farm. Crop dusting planes should be locked in a hangar when not in use, the keys removed and the engine disabled if not in use for a period of time.
- All pesticide containers should be secured inside a locked building.
- All unused buildings should be locked.
- Local law enforcement should be asked to patrol the farm perimeter at irregular times if there are perceived threats.
- Establish a neighborhood watch program.
- Get to know your local emergency personnel. Inviting police and fire authorities to evaluate your property can save precious time in case of a real emergency.
- Employees should be encouraged to report any suspicious activity or persons.
- Computer files or data systems should have restricted access.
- Electronic communications should be secured and virus protection installed. Back-up files should be stored off-site.
- Maintain good inventory records of equipment and chemicals such as fertilizers and pesticides. Good records may be indispensable to emergency personnel.
- Restrict access to security codes and keys.
- If new construction is contemplated, security should be considered in the design of the new facilities.
- Create a good emergency plan in writing, including evacuation plans for all buildings, chemical inventory and where the chemicals are located, utility locations and procedures for shutting them off and employee procedures during an emergency.

2. Create and implement a visitor policy. Visitors, salespeople, tourists, service personnel and veterinarians can all serve as transmitters of disease. All visitors to the farm must check in with a designated farm representative in a pre-determined location. This will help account for all people on the farm and protect against unwanted visitors. The plan should include the following policies:

- Post signs indicating where visitors are to report and rules to be followed while on the farm.
- Designating a specific area for visitor parking.
- Maintain a record of visitor names and companies; arrival and departure times and the purposes of the visit.
- Do not allow visitors to bring pets of any kind onto your property as they may carry diseases.
- Use visitor badges or identification cards if needed. Explain disease prevention and policies to visitors.
- Do not allow visitors, delivery personnel or service support into the livestock areas or barns unless absolutely necessary.
- Restrict access to important areas, such as the milk room, fuel, pesticide and fertilizer storage.
- Do not allow anyone onto the farm who has visited a farm in a foreign country for 7 days after returning to the United States.
- Do not allow visitors to bring food onto the farm.

3. Protect animals from contamination or infection. Animal infection or contamination can be either accidental or deliberate. An animal can be incubating a transmissible disease but may not show any symptoms during the incubation period. The following guidelines should be followed to help maintain animal health:

- Learn the health history of purchased animals. Separate any new animals from the herd for 3 to 4 weeks after arrival on the farm to monitor their health. Feed and handle these animals last. Test if necessary for diseases.
- Maintain a vaccination program and parasite control program for all animals.
- Maintain a closed herd if possible.
- Practice “all-in, all-out” farming. This means a group of animals is raised together and sent to slaughter at the same time, the premises cleaned and disinfected and then the next group of animals is brought in. This prevents mixing of various age groups and prevents the spread of disease producing pathogens.
- If animals are re-entering the farm, they should be placed in quarantine for at least two weeks to one month before returning to the herd or the flock. A disease may not produce any signs in cattle for five days or in pigs for 10 days.
- Test animals as necessary for diseases.
- Know the signs of reportable and foreign animal diseases and report any unusual symptoms immediately to your veterinarian.
- Provide disposable boots or disinfectant footbaths for any visitors and make sure they use them. If disposable boots are used, provide a means of disposal on the farm.
- Provide accessible and functioning hand washing stations.
- Do not let any visitor into the operation if they have been outside the continental U.S. during the past 14 days, unless they have not been in close proximity to hoofed animals within the past 7 days.
- Restrict visitors from access to feed storage areas and areas where animals are housed.
- Make sure the perimeter fencing is secure to prevent contact with livestock from neighboring farms.
- Limit direct contact of your animals with wildlife, including deer, birds, raccoons, coyotes and rodents. Try to prevent your animals from sharing a common feed or water source with wildlife. Keep wildlife out of animal facilities and living spaces of the herd.
- Separate any obviously ill animals from the rest of the herd and handle these animals last. Call your veterinarian for appropriate testing and treatment.
- Remember dogs and cats can also carry diseases to livestock.
- Prevent organic matter from entering the animal facilities from sources such as vehicles, equipment and runoff from other farms.
- Know the source and quality of purchased feeds and ensure that no protein supplement derived from ruminant tissues is fed to cattle, sheep or goats.
- Do not feed table scraps, human food products or garbage to farm animals.

4. Employee Security and Awareness. All employees should practice biosecurity.

Everyone must carefully supervise the activities of visitors, service providers and other employees.

- Ask applicants for a resume of their qualifications and to complete a job application.
- Perform background checks to establish a potential employee's qualifications and any criminal record.
- Institute a probationary period for new employees to properly evaluate a new employee's work habits.
- Train employees to recognize and report suspicious individuals or unusual activities, security breaches, suspicious materials or devices and missing equipment.
- Train new employees to recognize disease signs in animals so they can recognize and report any signs of illness in the animals.
- Implement policies on appropriate personal protection equipment as dictated by management and required by law.
- Train employees properly in their jobs and procedures.
- Train employees about the emergency plan, their responsibilities under the plan, and review it periodically with them.

5. Equipment cleaning and disinfection. Cleaning and disinfecting equipment and the facility will go a long way in keeping animals healthy. Remember all manure and organic material must be removed before disinfectants will work. Do not lend or borrow equipment. If equipment must be loaned it must be cleaned and disinfected before it is returned.

- Clean and disinfect any equipment used on ill animals before use on healthy herd mates.
- Clean and disinfect dehorers, hoof knives and clippers between animals.
- Use your own halters and clippers rather than borrowing them.
- Clean and disinfect nursing bottles and buckets after each feeding.

6. Personal sanitation:

- Wash clothing worn on the farm with detergents and bleach or washing soda. Provide on-farm laundry facilities for employees.
- Insist workers wash their hands before milking dairy animals and after working with sick animals. Disposable gloves are recommended when frequent cleaning between animals is necessary.
- Insist workers wear protective plastic or rubber gloves when assisting with births.

7. Farm traffic, animal movement and sanitation:

- Keep visitor and service vehicles from driving over feed delivery or manure handling routes if at all possible.
- Park all vehicles away from livestock areas, preferably on concrete.
- Avoid the transfer of manure, dirt, mud or other organic material via vehicles.

- Locate holding pens for animal pickups near the road and away from the barns or livestock areas.
- Use only clean well-bedded trucks to move livestock to avoid introducing diseases and to avoid injuries during transport.
- Clean and disinfect all vehicles carrying livestock between shipments.
- Thoroughly wash and disinfect the inside, outside and tires of livestock hauling trucks, trailers, manure loaders and spreaders, tractors, portable livestock chutes or other implements of husbandry shared with neighbors which could spread disease from one farm to another (Bishop 2003, CFIA 2004, Huston 2004, Sellers undated, Snively undated, Stallings 2002, UMN CVM 2001).

8. Dead animal management

- Quickly separate dead animals from live animals.
- Dispose of dead animals within 24 hours of discovering them as required by Indiana law. (IC 15-2.1-16-20).
- Dispose of dead animals via rendering, burial, composting, or incineration in compliance with state rules. Contact the State Board of Animal Health for additional information: Phone 317-227-0300; animalhealth@boah.in.gov; or [www.http://www.in.gov/boah/](http://www.in.gov/boah/)

A safe, secure and inexpensive food supply is the foundation of any society and should be protected from both accidental and intentional harm. Good farm security and biosecurity protocols will protect a farm's animals, crops and property from accidental or intentional harm.

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Indiana State Board of Animal Health
805 Beachway Drive, Suite 50
Indianapolis, IN 46224
Phone 317-227-0300
Fax 317-227-0368
animalhealth@boah.in.gov
[www.http://www.in.gov/boah/](http://www.in.gov/boah/)

Biosecurity Plan

Name _____ Date _____

Please check the statements that apply to your farm and add any additional biosecurity measures in the blank spaces provided.

Security of the Buildings and Grounds

- ☐ The entrance to the farm is clearly marked with signs.
- ☐ There is a controlled gate entrance.
- ☐ There is security lighting on the farm.
- ☐ There is a perimeter fence.
- ☐ Electronic security devices are used.
- ☐ Critical storage areas are locked.
- ☐ Exterior ladders are protected.
- ☐ Exterior liquid tanks are locked when not in use.
- ☐ Vehicles are locked and keys removed when not in use.
- ☐ Pesticide containers are secured inside a locked building.
- ☐ All unused buildings are locked.
- ☐ Local law enforcement officers patrol the farm perimeter.
- ☐ A neighborhood watch program has been implemented.
- ☐ The producer has met with local emergency personnel.
- ☐ Employees are trained to report suspicious activity.
- ☐ Computer files have restricted access.
- ☐ Computers have virus protection installed.
- ☐ Computer files are backed up and stored off-site.
- ☐ Inventory records are kept.
- ☐ The producer maintains records on who has access to keys.
- ☐ The producer has a good emergency farm plan in writing.
- ☐ _____
- ☐ _____
- ☐ _____

Create and Implement a Visitor Policy

- ☐ Visitor signs are posted.
- ☐ Visitor rules are followed.
- ☐ Visitor parking is restricted.
- ☐ Visitor records are maintained.

- ☐ No visitor pets are allowed on the farm.
- ☐ Visitors understand disease prevention.
- ☐ Visitors are not allowed into livestock areas or barns unless absolutely necessary.
- ☐ Anyone who has been out of the country during the past 7 days is not allowed to visit the farm.
- ☐ Visitors are not allowed to bring food on the farm.
- ☐ Visitor access is restricted.
- ☐ _____
- ☐ _____
- ☐ _____

Protect Animals from Contamination or Infection

- ☐ The producer knows the health history of purchased animals.
- ☐ New animals are separated from the herd for 3-4 weeks.
- ☐ New animals are fed and handled last.
- ☐ Animals are tested as needed for diseases.
- ☐ Animal health is monitored before introduction into the herd.
- ☐ The producer has implemented a vaccination program for the animals.
- ☐ The producer has implemented a parasite control program for the animals.
- ☐ A closed herd is maintained.
- ☐ The producer practices “all-in, all-out” farming.
- ☐ Animals returning from a show or auction are placed in quarantine for at least two weeks to one month before returning to the herd or flock.
- ☐ The producer knows the signs of reportable foreign animal diseases and reports any unusual symptoms immediately to the veterinarian.
- ☐ Disposable boots or disinfectant footbaths are provided for visitors.
- ☐ Accessible hand washing stations are provided.
- ☐ Contact with wildlife is limited.
- ☐ Any obviously ill animals are separated from the rest of the herd.
- ☐ Pets are restricted.
- ☐ Organic material is prevented from entering animal facilities.
- ☐ The source and quality of feed is tracked.
- ☐ No protein supplement is derived from ruminant tissues that are fed to cattle, sheep or goats.
- ☐ _____
- ☐ _____
- ☐ _____

Employee Security and Awareness

- ☐ Job applicants must complete a job application and list their qualifications.
- ☐ Background checks are done on job applicants.
- ☐ New employees have an initial probationary period.
- ☐ Employees are trained to recognize and report any disease signs in animals.
- ☐ The producer has implemented policies on appropriate personal protection equipment.
- ☐ Employees are properly trained in their jobs and procedures.
- ☐ Employees are trained on the importance of biosecurity for the farm.
- ☐ Employees are trained on the emergency plan and their responsibilities.
- ☐ The producer reviews the emergency plan periodically.
- ☐ _____
- ☐ _____
- ☐ _____

Equipment Cleaning and Disinfection

- ☐ Equipment used on ill animals is cleaned and disinfected before use on healthy herd mates.
- ☐ Dehorers, hoof knives and clippers are cleaned and disinfected between animals.
- ☐ Halters and clippers are not borrowed or lent out.
- ☐ Nursing bottles and buckets are cleaned and disinfected after each feeding.
- ☐ The facility is cleaned and disinfected between “all-in, all-out” procedures.
- ☐ _____
- ☐ _____
- ☐ _____

Personal Sanitation

- ☐ Clothing is washed in detergent and bleach or washing soda.
- ☐ On-farm laundry facilities are provided for employees.
- ☐ Workers are required to wash hands before milking dairy animals.
- ☐ Workers are required to wash hands after working with sick animals.
- ☐ Disposable gloves are used when frequent cleaning between animals is necessary.
- ☐ Workers are required wear protective plastic or rubber gloves when assisting with births.
- ☐ _____
- ☐ _____
- ☐ _____

Farm Traffic, Animal Movement and Sanitation

- ☐ Visitor traffic is restricted.
- ☐ Parking is restricted.
- ☐ The transfer of manure, dirt, mud or other organic material via vehicles is avoided.
- ☐ Holding pens for animal pickups are located near the road and away from the barns or livestock areas.
- ☐ Only clean well-bedded trailers are used to move livestock.
- ☐ The inside, outside and tires of livestock hauling trucks and trailers are washed and disinfected between shipments.
- ☐ Manure loaders, spreaders and tractors are washed and disinfected after use.
- ☐ Portable livestock chutes or other implements of husbandry shared with neighbors washed and disinfected after use.
- ☐ _____
- ☐ _____
- ☐ _____

Dead Animal Management

- ☐ Dead animals are quickly separated from live animals.
- ☐ Dead animals are disposed of within twenty-four (24) hours of discovering them as required by Indiana law. (IC 15-2.1-16-20)
- ☐ Dead animals are disposed of via rendering, burial, composting or incineration in compliance with state rules.
- ☐ _____
- ☐ _____
- ☐ _____

Biosecurity Practices

- ☐ Biosecurity practices and procedures are implemented on the farm.
- ☐ The biosecurity plan is reviewed and updated annually.
- ☐ The herd veterinarian was consulted and reviewed the plan.

BIO-SECURITY
SELF ASSESSMENT

The following two questions are State and Federal compliance requirements, please verify these codes are followed on your farm by checking the yes box.		Yes
There is no protein supplement derived from ruminant tissues that are fed to cattle, sheep or goats?		
Do you dispose of dead animals with twenty-four (24) hours of discovering them? (IC 15-2.1-16-20)		
Directions: Please score the yes answers and put the total score on the Validation Form.		
Questions	Points	Yes answer score points
Do you have a written biosecurity plan for your operation?	5	
Was the biosecurity plan designed in consultation with your veterinarian?	5	
Are you currently implementing the practices and procedures contained in your biosecurity plan?	5	
Do you update your biosecurity plan annually or when changes occur on the farm?	5	
Must score minimum of 15 points		
Does your biosecurity plan address each of the following subjects as they relate to your operation (See the applicable Section of the Biosecurity Guidelines for additional information):		
Physical security of buildings and grounds. (Section 1)		
Is the entrance to the farm clearly marked with signs?	2	
Are biosecurity signs or disease prevention signs posted?	4	
Is there security lighting on the farm?	2	
Is there an electronic security system with off-site security monitoring?	2	
Are critical storage areas locked when not in use? (feed room, milk room)	2	
Vehicles are locked or keys removed when not in use?	2	
Are employees trained to report suspicious activity?	2	
Are computer files backed up?	2	
Do you have an emergency plan in writing and employees trained?	2	
Are fuel tanks protected from unpermitted use?	2	
Are unused buildings locked when not in use?	2	
Have you invited police or fire authorities to evaluate your property, this can save precious time in case of a real emergency?	2	
Do you maintain inventory records of equipment, chemicals, pesticides and fertilizers in case of theft, fire, flood or agroterrorism?	2	
Must score minimum of 14 points		
Visitor management. (Section 2)		
Are visitor procedures established and followed?	2	
Are service support and delivery personnel restricted from barns unless absolutely necessary?	2	

BIO-SECURITY
SELF ASSESSMENT

Are visitors restricted from areas where animals are housed?	2	
Are visitors restricted from farm if they have been in a foreign country for the previous 14 days?	2	
Are biosecurity procedures and disease prevention explained to visitors?	2	
Do you supply (a minimum of) disposable boots or disinfectant footbaths for visitors?	2	
Is there a designated visitor parking area?	2	
Must score minimum of 10 points		
Sourcing of inputs (feed, water, animals, supplies, services). (Section 3)		
Do you know the source and quality of feed purchased?	2	
The farm does not feed table scraps, human food products or garbage to farm animals?	2	
Are animals quarantined before entering the herd from a show, auction or newly purchased?	2	
Do you know the health history of purchased animals?	2	
Must score minimum of 6 points		
Employee (and family) training on biosecurity procedures. (Section 4)		
Do job applicants complete a job application that lists their qualifications?	2	
Is there a background check done on the applicant before hiring?	2	
Are employees trained properly in their jobs and procedures?	2	
Are employees trained in biosecurity practices?	4	
Are employees trained to recognize and respond to sick or injured animals?	4	
Must score minimum of 10 points		
Disease Prevention (health monitoring, vaccine and medication usage, isolation protocols, and maintenance of medical records). (Section 5)		
Is there a vaccination program in place?	5	
Is there a parasite control program?	5	
Do you know the signs of reportable and foreign animal diseases?	5	
Are facilities cleaned and disinfected when using "all-in, all-out" procedures?	2	
Is equipment cleaned and disinfected after contact with ill animals?	4	
Are dehorning, hoof knives and clippers cleaned between animals?	2	
Do you isolate or separate ill animals from the rest of the herd?	5	
Do you maintain records for vaccination and treatment of animals?	5	
Is there a rodent control program?	2	
Is there a fly (pest) control program? (in buildings or for livestock)	2	
Is there a bird control program?	2	
Is feed spillage cleaned up around feed bins or feed rooms?	2	
Do you limit direct contact of animals with wildlife?	2	
Do you try to prevent livestock from sharing common feed or water sources with wildlife?	2	
Do you try to prevent wildlife from contact with feed supply area?	2	

BIO-SECURITY
SELF ASSESSMENT

Must score minimum of 23 points		
Personal and Farm sanitation (Section 6)		
Is farm clothing washed in detergent and bleach or washing soda?	2	
Are workers required to wash hands after working with sick animals?	4	
Are there accessible hand washing stations?	2	
Are employees break facilities clean? (lunch room, restrooms)	2	
Are workers required to wear protective plastic or rubber gloves when assisting with births?	2	
Must score minimum of 8 points		
Traffic control (people, animals, vehicles and equipment). (Section 7)		
Do you restrict dogs and cats in livestock areas?	2	
Do you prevent organic material from entering animal facilities from vehicles? (feed trucks)	2	
Do you use clean and/or well-bedded trailers to move livestock?	2	
Do you wash and disinfect inside, outside and tires of livestock hauling truck and trailers between shipments?	2	
Must score minimum of 4 points		
Dead animal management (Section 8)		
Do you quickly separate dead animals from live animals?	5	
Do you dispose of dead animals via rendering, burial, composting or incineration in compliance with state rules?	5	
Must score minimum of 10 points		
TOTAL Score		

Name of Producer _____
 Location _____
 Species _____

Biosecurity
 Veterinarian Assessment

Date _____

Directions:		
Producer: Please consult with your herd veterinarian or Company Technical Official to develop and review your biosecurity plan. Then have them complete this Assessment.		
Veterinarian or Company Technical Official: Please answer each of the following yes/no questions and sign where indicated below.		
	Yes	No
Does this producer have a written bio-security plan for their operation?		
Did this producer consult with you on the contents of the bio-security plan?		
Does this producer's biosecurity plan adequately address each of the following subjects as they relate to the producer's operation:		
Physical security of buildings and grounds.		
Visitor management		
Sourcing of inputs (feed, water, animals, supplies, services)		
Employee (and family) training on biosecurity procedures		
Disease prevention (health monitoring, vaccine and medication usage, isolation protocols, and maintenance of medical records)		
Personal and farm sanitation		
Traffic control (people, animals, vehicles and equipment)		
Dead animal management		
Additional Comments by the Veterinarian about this producer's biosecurity plan (attach additional sheets if needed):		
Signature of Veterinarian or Company Technical Official (Poultry)		
Printed Name of Veterinarian or Company Technical Official (Poultry)		
Address and Phone number of Veterinarian or Company Technical Official		

Validation Form: Biosecurity

Name _____

Please check the box of completed activities:

- ☐ Completed the Biosecurity section.
- ☐ Biosecurity self assessment score _____
- ☐ Developed and implemented a written biosecurity plan.
- ☐ Trained appropriate family members and employees in biosecurity control measures.
- ☐ Veterinarian completed assessment form.
- ☐ Identified goals for improvement.